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EXAMINER Elizabeth F. McElwain

GROUP 1638

APPLICANT Edward O. Kenaschuk

SERIAL NO: 10/059,080

FILED January 30, 2002

FOR HIGH LINOLENIC ACID FLAX

Commissioner of Patents

Washington, D.C., 20231

U.S.A.

Dear Sir:

AFFIDAVIT

I, Edward O. Kenaschuk, am the inventor of the above-identified patent application.

As evidenced by the enclosed copy of my "Recommendation for Promotion or Transfer" (Exhibit A), I am an experienced flax breeder with over 40 years experience.

In response to the examiner's comments in the Office Action dated July 3, 2003 regarding the above-referenced application, I offer the following comments and supporting evidence.

Regarding the specific crosses utilized to generate M5791, as discussed in the application as filed in the table inserted between pages 11 and 12 of the application as originally filed (now submitted as Figure 4 with the instant response), the crosses were carried out as follows:

M2854 was crossed with 91-4086, producing 93-14492 (1991);

M2854 was crossed with M3547, producing 92-235-4 (1991)

91-9791 was crossed with 91-4308, producing 93-15117y (1992);

93-14492 was crossed with 93-15117y, producing 95-27018-3 (1993);

93-15117y was crossed with 92-235-4, producing 95-27021-4 (1993); and

95-27018-3 was crossed with 96-27021-4, producing M5791 (1995).

As discussed in Exhibit B, the cross that produced M5791 (discussed above) also produced many other lines with high (73%) linolenic acid content. Two of these sister lines, 97-7981-3 and 97-7741-4 were crossed with an accession, U5-5 which has an average linolenic acid content of 67%. The results shown Exhibit B indicate that a significant number of the progeny from these crosses had high linolenic acid content (over 70%), 82% in the 97-7981-3 X U5-5 cross and 40% in the 97-7741-4 X U5-5 cross. From these progeny, the plant producing the seed with the highest linolenic acid content was selected for further analysis, although any of the high linolenic progeny could have been selected, as discussed later in Exhibit B. As can be seen, in both crosses, these selected progeny produced seed of which substantially all had linolenic acid content over 70%.

In Exhibit C, M6652 (also referred to as Promega 3), one of the lines produced by the cross 97-7981-3 X U5-5 was analyzed. As can be seen, this line produced seeds having linolenic acid content (over 70%). This Exhibit also includes a summary of linolenic acid content for the progeny lines referred to in Exhibit B.

M7073, one of the lines produced by the 97-7741-4 X U5-5 was analyzed and also produced seed having high linolenic acid content as shown in Exhibit B.

As summarized in Exhibit D, M5791 was also crossed with U5-5. As can be seen in Exhibit D, the 92% of the  $F_2$  progeny of this cross had linolenic acid content above 70%.

In summary, as discussed above, the initial crosses produced several progeny which had linolenic acid content above 70%, of which M5791 is a representative one. As discussed in the accompanying exhibits, 97-7981-3 and

97-7741-4 are examples of two sister lines which also had high linolenic acid content.

Furthermore, as discussed above and in the accompanying exhibits, it has been shown that these lines can be crossed with a non-high linolenic acid flax and produce progeny from which high linolenic plants can be easily selected without undue experimentation.

I declare that all statements made therein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the instant patent application or any patent issuing therefrom.

SIGNED at Worthington, Minnesota  
(place of execution)

This 27 day of October, 2003

Edward O. Kanaschuk  
Edward O. Kanaschuk